Message

From: Stan Carey [scarey@massapequawater.com]
Sent: 7/28/2015 12:22:39 PM
To: Harrington, Jim (DEC) [jim.harrington@dec.ny.gov]; Fly, Lora B CIV NAVFAC MIDLANT, IPTNE [lora.fly@navy.mil]
CC: Paul Granger [pgranger@h2m.com]; JDeFranco@nassaucountyny.gov; Karpinski, Steven (HEALTH) [steven.karpinski@health.ny.gov]; Assemblyman Joseph Saladino [saladij@assembly.state.ny.us]; venturv@assembly.state.ny.us; jamie.tricarico@mail.house.gov; Kyle_strober@schumer.senate.gov; Basil.Seggos@exec.ny.gov; Hannon, ED (AS) [Edward.Hannon@ngc.com]; Eugene Leff [ejleff@gw.dec.state.ny.us]; JFCCPM@aol.com; Garbarini, Doug [Garbarini.Doug@epa.gov]
Subject: Massapequa Trigger Values
Attachments: removed.txt

Jim, Ms. Fly:

MWD strongly believes that the detection limits and MCL's for TCE and PCE will be lowered within the projected time frame of impact to MWD public supply wells. Therefore we are requesting the trigger values be adjusted accordingly. Below you will find what MWD requests the values be lowered to. The spreadsheets provided by Resolution (Navy Consultant) were used to determine the lower values. I have also included a report provided to me that points to the strong likelihood for the MCL and detection limits of TCE and PCE being lowered in the near future. Please consider lowering the original trigger values provided in the report. It is noted MWD makes this request at a time when we continue to see high concentrations further and further offsite. Thank you.

I re-ran the analysis based on a 0.1 ppb 5 year notice and came up with the following:

Monitoring Well	Original Trigger Value (ppb)	New Trigger Value (ppb)
BPOW6-1,2	1.8	0.35
BPOW6-3,4	2.8	0.60
BPOW6-5,6	1.6	0.30

You can see there is a big difference in values but it makes sense in light of a lowered MCL for TCE.
Thanks
Paul

Paul J. Granger, P.E.
Vice President | Deputy Water Market Leader

Paul asked me to consider your concerns about the possible revision to the current Federal drinking water regulations for TCE and PCE. While the regulatory wheels move slowly, there continues to be movement in this direction. Further, it does appear that analytical methodology improvements which incorporate lower reliable detection limits will play an important role in the process, whether EPA chooses to re-regulate these two contaminants individually, or in the content of their possible inclusion in a Carcinogenic VOC (cVOC) Rule.

The foundation for EPA's 2010 decision (also known as the Second Six Year Review) to consider re-regulation of TCE and PCE was presented as follows:

- **Trichloroethylene (TCE) and Tetrachloroethylene (PCE)**
  - **MCLs of 5 ppb in 1987 and 1991 respectively** (note: current NYS POC limit of 5 ppb for each, effective 1989)
  - **Both regarded as likely human carcinogens at the time of the EPA regulation w/ MCL Goals = 0**

- **Both are commonly occurring solvents often found at less than their current MCLs**
- **Improved lab procedures have demonstrated increased reliability of detection at lower concentrations since the time of the original Rules/MCLs for these contaminants**
- **Treatment reliability and costs are now well-demonstrated**

So the key drivers to re-regulation are these:

- Analytical methods have improved since the 1980's. When VOC analyses were initially performed detection limits were commonly in the 3 to 5 ppb range. Currently VOC lab detection limits in use for Method 524.2 are 0.5 ppb for these two contaminants (and for most VOCs)
- Studies regarding carcinogenicity of these two contaminants have largely confirmed EPA's original regulatory determination of carcinogenicity for TCE and PCE. EPA policy is that the MCL Goals for such contaminants is zero; the SDWA requires that the MCL should be as close to the MCLG **"as feasible"**
- Occurrence data shows these are still common contaminants in water sources; co-occurrence data with additional VOC contaminants being considered for a possible cVOC Rule is lacking and seems to be a factor in the delay of a cVOC Rule proposal.
- Compared to our level of understanding as it was in the late 1980's, we know much more about the reliability of GAC and air-stripping technology, and the design principals and cost for removal of these two contaminants
- **Additional analytical improvements may be approved or even required. This may occur even without a re-regulation of specific VOC contaminants.**

I'd like to focus on the last bullet. Currently three analytical methods are approved for regulatory purposes for TCE and PCE. In NY State the required method detection limit that the lab must achieve in its routine QA/QC is called out at 0.5 ppb. However, EPA lists two additional methods for VOCs, but they have not been added to its list of analytical methods approved for self-monitoring: Method 524.3 and Method 524.4. Method 524.3 is of particular interest as it is currently being used for the seven VOC compounds being analyzed under UCMR3. Most significantly, under UCMR3, the minimum required Reporting Levels for the seven UCMR3 contaminants range from 0.03 to 0.2 ppb. In the published Method 524.3, the Minimum Reporting Levels listed for TCE and PCE are 0.091 and 0.081 ppb. **Note that the listed MRL might not be the Method Detection Limit called out for regulatory purposes** (if EPA chooses to adopt 524.3 for regulatory purposes for TCE and PCE) but, coupled with the fact that EPA is actively studying the reliability of Method 524.3 in UCMR3 does point to that being a possibility.

In any case, I believe that there is significant evidence to support an eventual decision for lowers MCL for TCE and PCE. Based on analytical reliability and the now well-demonstrated capabilities of accepted Best Available Technologies for TCE and PCE removal, I think eventual MCLs in the 0.5-1.0 ppb for each are certainly a possibility. In fact, the AWWA's cVOC work group considered one possible cVOC Rule scenario to be that each individual cVOC would have an individual MCL of 0.1ppb. (See attached JAWWA Article, **Evaluation of Effects of Potential Group cVOC Regulations on Two Utilities,** which looked at two Long island suppliers). However, this study reported in the Journal indicated pack tower aeration would be hard-pressed to meet this, and a number of other potential cVOC scenarios considered for the purpose of study.

Sorry I can't take this discussion much further than this, but hopefully it give you some issues to consider.

Paul J. Ponturo, P.E.
Senior Water Resources Engineer
H2M architects + engineers
pponturo@h2m.com

Stan Carey, Superintendent
Massapequa Water District